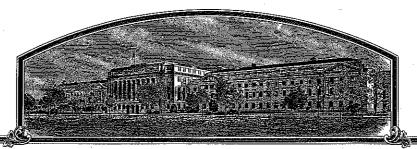
No.



THE UNITED STATES OF AMERICA

Rutgers, The State Unibersity of Aeb Jersey

THETEIS, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE LIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR ORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE E PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT OR BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

FESCUE, TALL

'Lexington'

In Testimonn Thereof, I have hereunto set my hand and caused the seal of the Hunt Haristy Frotestion Office to be affixed at the City of Washington, D.C. this third day of November, in the year two thousand and six.

Atlest:

Banger

Commissioner Plant Varioty Protection Offico Agricultural Marketing Service Goldens Siculture

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued

APPLICATION FOR PLANT	VARIETY PROTECTION	CERTIFICATE
APPLICATION FOR PLANT	VARIETT PROTECTION	CENTIFICATE

LOOK

S&T-470 (07-01) designed by the Ptant Variety Protection/Office with Word effect \$0.0 Replaces STD-470 (04-01) which is obsolete.

(7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426). (Instructions and information collection burden statement on reverse) 2. TEMPORARY DESIGNATION OR 3. VARIETY NAME EXPERIMENTAL NAME lmiversity of New Jersev RB3 l exinatori (BT:8/4/2006) 5, TELEPHONE (Include area code) 4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) FOR OFFICIAL USE ONLY PVPO NUMBER 732 - 932 - 9711 ext. 160 Foran Hall Plant Biology & Pathology Dept. 200400147 FAX (Include area code) 59 Dudley Road New Brunswick, NJ 732 - 932 - 9441 FILING DATE march 23,2004 7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF 8. IF INCORPORATED, GIVE 9. DATE OF INCORPORATION STATE OF INCORPORATION ORGANIZATION (corporation, partnership, association, etc.) Government Institution 10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers.) FILING AND EXAMINATION FEES: Ε 3652 DATE 3/23/2004 Dr. William Meyer c/o Rutgers University - Cook College Foran Hall Plant Biology & Pathology Dept. **CERTIFICATION FEE:** 59 Dudley Road New Brunswick, NJ , 768.00 08901 DATE 10/23/2006 14. CROP KIND (Common Name) 11. TELEPHONE (Include area code) 12. FAX (include area code) 13. E-MAIL Tall Fescue 732 - 932 - 9711 ext. 160 732 - 932 - 9441 17. IS THE VARIETY A FIRST GENERATION 15 GENUS AND SPECIES NAME OF CROP 16. FAMILY NAME (Botanical) HYBRID? ☐ YES ⊠ NO Poaceae Festuca arundinacea 19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF 18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act) reverse NO (If "no", go to item 22) ☐ YES (If "yes", answer items 20 a. A Exhibit A. Origin and Breeding History of the Variety and 21 below) b. Exhibit B. Statement of Distinctness □ NO □ ves c. Exhibit C. Objective Description of Variety 20. DOES THE OWNER SPECIFY THAT SEED OF THIS d. Exhibit D. Additional Description of the Variety (Optional) VARIETY BE LIMITED AS TO THE NUMBER OF CLASSES? REGISTERED ☐ CERTIFIED e. X Exhibit E. Statement of the Basis of the Owner's Ownership IF YES, WHICH CLASSES? □ FOUNDATION f., Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, 21. DOES THE OWNER SPECIFY THAT SEED OF THIS ☐ YES □ NO verification that tissue culture will be deposited and maintained in an approved public VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? repository) ☐ FOUNDATION REGISTERED ☐ 5 CERTIFIED g. A Filing and Examination Fee (\$2,705), made payable to "Treasurer of the United IF YES, SPECIFY THE NUMBER 1.2.3, etc. States" (Mail to the Plant Variety Protection Office) (If additional explanation is necessary, please use the space indicated on the reverse 23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL 22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U.S. OR PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? OTHER COUNTRIES? M NO ☐ YES ⊠ NO ☐ YES IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE REFERENCE NUMBER. (Please use space indicated on reverse.) FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.) 24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Owner(s) is(are),informed that false representation herein can jeopardize protection and result in penalties SIGNATURE OF OWNER SIGNATURE OF OWNER NAME (Please print or type) NAME (Please brint of CAPACITY OR TITLE DATE DATE CAPACITY

(See reverse for instructions and information collection burden statement.)

Exhibit A:

Origin and Breeding History Lexington' (<RB3)[all Fescue (8T: 8/4/2006)

(BST: 8/4/2006)

RB3tall fescue (Festuca arundinacea Schreb.) is a medium low-growing, dark green, medium-fine-leaved, turf-type tall fescue selected from the progenies of 67 clones. RB3 was selected for intermediate density, leafy semi-dwarf growth habit and medium maturity. Approximately 96% of the parental germplasm in RB3 contain the Neotyphodium endophyte.

The parental germplasm of RB3 tall fescue traces its origin to plants selected from old turfs of the United States in a germplasm collection program initiated in 1962, to plants selected from or related to Rebel tall fescue (Funk et al., 1981). Attractive clones were selected from old turfs in Birmingham, AL; Athens, Atlanta, and Millegeville, GA; Preston, ID; Baltimore, MD; Bayonne, Jersey City, Elizabeth, Princeton, and Cape May, NJ; eastern North Carolina; Philadelphia, PA; Nashville, TN; Lexington, KY; Cincinnati, OH; Dallas, TX, and northern Mississippi. The tall fescue plants selected from old turfs were of unknown origin. All were large patches of turf surviving in stressful environments indicating that they had persisted and developed over a period of many years.

A few hundred attractive, turf-type plants were collected and established in spaced-plant nurseries and/or frequently mowed clonal evaluation trials at Rutgers University. All but a few dozen of the most promising plants were quickly discarded. The best selections were very different from any tall fescue variety in existence at the time of collection. They produced lower-growing turfs with finer leaves, greater density, darker color and greater tolerance of close mowing.

The most promising plants were identified by their persistence and appearance in old turfs and their performance in spaced-plant nurseries, mowed clonal evaluation tests, and single-plant progeny trials under turf maintenance. Intercrosses of the best performing plants were subjected to varying cycles of phenotypic and genotypic selection depending on their date of collection. New sources of germplasm were added to the breeding program as it became available from the continuing collection program. Each cycle of selection showed continued progress in producing lower-growing, darker green, attractive plants with improved turf performance scores. Selection was also effective in maintaining high seed yields, and good stress tolerance. Substantial progress was

made in developing tall fescues with finer leaves, a lower growth profile, increased persistence under close mowing, and increased density.

Large numbers of single-plant progenies were seeded in turf evaluation trials at the Plant Science Research Farm at Adelphia, NJ in 1995, 1996, 1997, and 1998. The plants selected for progeny evaluation were selected from spaced-plant nurseries at Adelphia following varying cycles of phenotypic and genotypic selection of germplasm selected from old turfs and germplasm selected from or related to Rebel tall fescue.

Following a period of brown patch disease in 1998, a total of 6,150 tillers were selected from the best performing single-plant progeny turf plots from the 1995, 1996, 1997 and 1998 tall fescue test at Adelphia. One hundred and forty-five single-plot progenies were selected from 510 plots from 8 different populations from the 1995 test, 585 plots from 9 different populations in the 1996 test, 1,055 plots from 10 different populations from the 1997 test and 635 plots from 9 different populations from the 1998 test. These plants were established in greenhouse flats prior to their transfer to two spaced-plant nurseries in the fall of 1999. Selection was based on performance records as well as appearance at the time the plants were selected from these progeny plots. Selection of plants from each progeny was based on an attractive dark green color, medium-fine leaves, abundant tillering, a more open, coarse canopy structure and freedom from brown patch disease. Brown patch selections were put in a separate nursery that consisted of 3,900 plants, while the open, coarse selections were placed in another nursery that consisted of 3,060 plants. In the spring of 2000, 67 plants were selected from those nurseries for characteristics such as mediumearly maturity, dark green color, intermediate shoot density, semi-dwarf leafy growth habit and freedom from disease. The selected plants were moved prior to anthesis, to an isolated crossing block at Adelphia. A total of 56 plants with the best floret fertility and highest seed yield from 32 different mother lines were harvested. In the fall of 2000, one turf plot of each line was established at Adelphia and 1 gram of seed from each line was sent to Advanta Seeds Pacific.

In the fall of 2000 a seed increase block containing 3,360 plants of 56 progeny lines was having weak lighter established in Albany, OR. In 2001 negative mass selection was used and 3.26 % of the plants were and of search rogued from the population. The remaining plants were harvested in bulk and designated breeder reproval seed. This seed was used to establish a morphological nursery for Plant Variety Protection (PVP) measurements.

References

- 1. Buckner, Robert C., Jerell B. Powell, and Rod V. Frakes. 1979. Historical Development, in Buckner, Robert C., and Lowell P. Bush (editors) Tall Fescue. Agronomy Monograph 20. American Society of Agronomy, Crop Science Society of America, Soil Science Society of America, Inc., Publishers. Madison, Wisconsin, pages 1-8.
- 2. Funk, C. R., R. E. Engel, W. K. Dickson, and R. H. Hurley. 1981. Registration of 'Rebel' tall fescue. Crop Sci. 21:632.

Diagram of Origin and Breeding History Lexington' <RB3-Tall Fescue (ET:8/4/2006)

1962 - 1994:

Germplasm collection, evaluation, and genetic improvement.

1995 - 1998:

Planted single-plant progenies of plants selected from current cycles of population improvement programs in closely mowed turf trials at Adelphia and North Brunswick, New Jersey.

1999:

Selected 6,150 plants from 145 of the best performing single-plant turf plots planted in 1995, 1996, 1997 and 1998. Established selected plants in two isolated spaced-plant nursery at Adelphia, New Jersey.

2000:

Moved 67 plants to an isolated crossing block. Harvested from 56 plants with excellent appearance and floret fertility.

Each plant of RB3 tall fescue traces at least 20 percent of its ancestral germplasm to plants selected from or related to Rebel tall fescue. Eighty percent of its ancestral germplasm traces to plants selected from old turf areas of the United States in a germplasm collection program initiated in 1962 and has undergone numerous cycles of phenotypic and genotypic recurrent selection for improved turf characteristics.

2. Breeder Seed Maintenance:

A breeder seed multiplication was planted in isolation in 2000 in Albany, Oregon. Seed was harvested in bulk in 2001, designated breeder seed and is maintained in cold storage. Seed propagation is limited to three generations, one each of foundation, registered, and certified.

3. Stability and Uniformity:

RB3 has been a stable uniform cultivar over two generations. No off-type or variant plants have been observed during the multiplication or reproduction. Turf plots of RB3 have been uniform and stable.

(C)(20/20/2006 BT per applicant's approval)

Exhibit B: 'Lexington' Novelty Statement of RB3/Tall Fescue (BT:8/4/2066)

The following summary outlines the distinctive characteristics of RB3. The novelty of RB3 is based on the unique combination of theses characteristics. RB3 is most similar to Rebel II, but may be differentiated by using the following criteria:

- 1. The genetic color of RB3 is darker compared to Rebel II (tables 1A, 1B).
- 2. The flag leaf characteristics for RB3 of length and sheath length are shorter compared to Rebel II (tables 1A, 1B).
- 3. The leaf blade length and leaf blade sheath length are reduced for RB3 compared to Rebel II (tables 1A, 1B).
- 4. The number of spikelets per panicle is less for RB3 compared to Rebel II (tables 2A, 2B).
- 5. The length of the panicle from the lower most whorl to apex is shorter for RB3 than Rebel II (tables 2A, 2B).
- 6. RB3 has a shorter whorl length compared to Rebel II (tables 2A, 2B).
- 7. The purple pigmentation of the panicle is more frequent in Rebel II than RB2 (tables 3A, 3B).
- 8. RB3 produces more plants with only one branch of the lower most whorl than Rebel II (tables 3A, 3B).
- 9. RB3 has a higher seed weight compared to Rebel II (tables 4A, 4B).
- (2018/4/2006) 10. Lexington (RB3) has a greater frequency of semi-rough leaf blade margins than Rebel II (tables 4A, 4B).

REPRODUCE LOCALLY. Include form number and date on all reproductions.

Form Approved - OMB No. 0581-0055

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Officer, OIRM, AG Box 7630, Jamie L. Whitten Building, Washington, D.C. 20250. When replying, refer to OMB No. 0581-0055 and form number in your letter. Under the PRA of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

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U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY PROGRAM PLANT VARIETY PROTECTION OFFICE BELTSVILLE, MD 20705 EXHIBIT C (TALL & MEADOW FESCUES)

OBJECTIVE DESCRIPTION OF VARIETY TALL & MEADOW FESCUES

(Festuca spp.)

NAME OF APPLICANT(S)		TEMPORARY DESIGNA	ATION VARIE	TY NAME
Rutgers University		RB3	: - -	gaton'
c/o Dr. William Meyer	I		(8/4/20	, , -
ADDRESS (Street and No., or R.F.D. No., City, State	and ZIP Code)			FFICIAL USE ONLY
Foran Hall	, unu 211 (0000)			NUMBER
Plant Biology & Pathology Dept.			İ	
59 Dudley Road				
New Brunswick, NJ 08901			200	400147
Place the appropriate number that describes the varieta 089). Characteristics described, including numerical n be for SPACED PLANTS. Royal Horticultural Society with an asterisk * are characteristics which should be * 1. SPECIES: (With comparison varieties, use varieties)	neasurements, shou y or any recognized recorded.	ald represent those that are color fan may be used to d	typical for the var etermine plant col	riety. Measured data should
	•	••	iy)	
$X_1 = F$. arundinacea (Tall)	Turf Typ	<u>oes</u>		
$1 = \text{Kentucky } 31 \ 2 = \text{Rebel}$	3 = Olympic	1 = Bonanza	5 = Arid	6 = Rebel II
7 = Shortstop 8 = Silverado	9 = Rebel Jr.	10 = Mini Mustang	11 = Crewcut	12 = Bonsai
	Forage T	ypes		
20 = Kentucky 31	21 = Martin	22 = Forager	23 = Mozark	
24 = Kenhy	25 = AU Triumph	26 = Fawn	27 = Cajun	
2 = F. pratensis (Meadow)	·			
30 = Admira 31 = Bea	umont 32 = Com	itessa 33 = Ensign	34 = Trader	
* 2. CYTOLOGY:42 Chromosome	Number			·
3. ADAPTATION: (0 = Not Tested; 1 = Not Adapted	; 2 = Adapted)			
0Transition Zone2West	_2_ Northeast _	Other (Specify):		
* 4. MATURITY: (Date First Headed, 10% of Panicle	e Emergence)			
_5 Maturity Class 1 = Very early ()	2 = AU Triumph	3 = Early (Fawn)	4 = K31, Kenh	y 5 = Medium (Rebel)

4. MATURITY: (co	ontinued)							
	$6 = B_0$	onanza	7 = Lat	te (Silverado)	8 = ()	9 = Very late	0600147
Date Headed38.	25 days after a	April 1,		Location	_Albany, O	R		
Day	s earlier than							
Mar	turity same as	_6_ >	Compari	son Variety				
	s later than		•	•				
* 5. MATURE PLA from crown to top							ing the flag leaf)	
86.90 cr	n Height				15.15_	cm Inter	nodeLength	
cm	Shorter than	- `			cm	1 Shorter	than — 🔁	
H	leight same as	_6_ _6}	Comparison V	Variety	L	ength sa	me as _6_ >	Comparison Variety
cı	m Taller than		•	•	c	m Longe	r than	Comparison Variety
* HEIGHT AT EA cm cm H	om Height Shorter than eight same as m Taller than	_6_ }			flag leaf no	ode)		
	= Prostrate (3 = Sen	niprostrate ()	5 = H	orizontal ()	
	= Semierect (1			ct (Mini Must			()	
* 7. RHIZOMES (Page 1)	`							
•	•	_1_1 = Abse	nt ()	2 = Rare (Re	ebel)	3 = Cc	ommon ()	
* 8. LEAF BLADE:	(Tiller leaves	/ turf color)						
*_8_ Color	: 1 = Lig	tht green ()		3 = Medium	light green	()	5 = Green ()
	7 = Me	dium dark gree	en ()	9 = Very dar	rk green ()		
5	Specify	rating of com	parison varie	ty		-		
*_1_ Antho	ocyanin:	1 = Absent ()	9 = Present (()			
*_1_ Basal	Hairs:	1 = Absent ()	9 = Present (()			
*_1_ Margi	ins:	1 = Smooth (()	5 = Semi-rou	ıgh ()		9 = Rough ()

8. LEAF BLADE: (continued)			æ.	
*_6_Width Class:	$1 = \text{Very coarse} () \qquad 3 = 0$	oarse ()	5 = Medium ()	00400147
	7 = Fine () $9 = V$	ery Fine ()		
* TILLER LEAF LENGTH CM: (First leaf subtending the flag leaf)	* TILLE	R LEAF WIDTH MM:	
27.65 cm Tiller Leaf Le	ength	_9.23_ mm	Tiller Leaf Width	
cm Shorter than	_	mm	Narrower than	
Length same as	_6_ Comparison Variety	Wid	Ith same as _6_	➤ Comparison Variety
cm Taller than		mm	Longer than J	
FLAG LEAF LENGTH CM:		FLAG	LEAF WIDTH MM:	
32.35 cm Flag Leaf Ler	ngth	_6.98_ mm	ı Flag Leaf Width	
5.65 cm Shorter than	_6_	mm N	Varrower than	
Length same as		Widt	th same as _6_	S Communication Western
cm Longer than	Comparison Variety		Wider than	Comparison Variety
* 9. LEAF SHEATH: (Basal Portion	on)	-		
*_1_ Anthocyanin (seedling	ng): $1 = Absent (K31)$	9 = Pro	esent ()	
*_9_ Auricle Hairiness:	1 = Absent ()	9 = Pro	esent (92%)	
* 10. PANICLE: (At seed maturity	except where noted.)			
7 * 8 Shape: 1 = Nara	row-tapering (34%) $5 = 0$	vate ()	7 = Oblong (66%)	9 = Other (specify)
*_7_ Type: 1 = Com	spact (34%) $5 = In$	termediate ()	7 = Open (66%)	9 = Other (specify)
*_9_ Orientation:	1 = Nodding ()	9 = Erect (100%	6)	
*_1_ Branch Pubescence:	1 = Glabrous (100%)	9 = Pubescent ()	
*_1_ Anther Color (At ant	hesis): 1 = Yellowish Green	2 = Green	3 = Bluish Green	
	4 = Purplish	5 = Reddish	6= Other (Specify)	
*_1_ Glume Color (At ant	hesis): 1 = Yellowish Green	2 = Green	3 = Bluish Green	
	4 = Purplish	5 = Reddish	6= Other (Specify)	
*_69.03_ cm Panicle Leng	th (from base to tip, if nodding, s	traighten; after anth	nesis)	
cm Shorter than	_ >			•
Length same as	_6_ Comparison Variet	**		
, cm Longer than	_ f Comparison variety	y		

* 11. SEED: (With Lemma & Pelea)	
*_3973 mg per 1000 seeds	200400147
mg Less than	
Weight same as Comp	arison Variety
1663 mg More than6 J	
PALEA: (Keels or Margins) _5_ Hairs: 1	1 = Absent() $5 = Short(Missouri 96)$ $9 = Long()$
LEMMA: 97_Hairs: 1	= Absent (Kenhy) 5 = Several () 9 = Many (Missouri 96)
(51:8/4/06) _6.80_ mm Lemma Length (Mature)	_1.55_ mm Lemma Width
mm Shorter than	mm Narrower than
Length same as -6 Compared	rison Variety Width same as _6_ Comparison Variety
mm Longer than	rison Variety Width same as _6_ Comparison Variety mm Wider than
	at () 9 = Present (Falcon)100_% Plants with awns
0.91 mm Awn length (Of those present.)	
. mm Shorter than	
Length same as _6_ Compar	
. mm Longer than	rison Variety
12. DISEASE, INSECT, AND NEMATODE REACTI	ON: (0= Not Tested 1= Least Resistant 9= Most Resistant)
0 Melting-out Drechslera poae	_0_Blind Seed Gloeotinia temulenta
0 Leaf Spot D. siccans	_0_ Dollar Spot Lanzia, Mollerdiscus spp.
_0_Net Blotch D. dictyoides	_0_ Stem Rust Puccinia graminis
0 Brown Patch Rhizoctonia solani	_0_ T. Blight Typhula incarnata
0 C. Leaf Spot Cercospora fectucae	_0_Pythium Blight Pythium spp.
0 Pink Snow Mold Gerlachia nivalis	_0_ Powdery Mildew Erysiphe graminis
0 Silver Top F. tricinctum, F. roseum	_0_ Crown Rust Puccinia coronata
0_ Other Disease	
0 Other Insect	
0 Other Nematode	
13. ENVIRONMENTAL STRESS	
) $5 = \text{Tolerant}()$ $9 = \text{Resistant}()$
Shade Stress 1 = Succentible (5 = Tolerant() $9 = Resistant()$

13. ENVIRONMENTAL STRESS: (continued)

200400147

6 Winter Stress

1 = Susceptible ()

5 = Tolerant (

9 = Resistant (

14. GIVE VARIETY OR VARIETIES THAT MOST CLOSELY RESEMBLE THE APPLICATION VARIETY. For the following characteristics, indicate the degree of resemblance with the following scale:

1 = Application variety is less than comparison variety 2 = Same as 3 = More than, better, greater, darker, etc.

Character	Varieties	Rating	Character	Varieties	Rating	
Leaf Width	Rebel II	2	Leaf Color	Rebel II	3	
Panicle Color	Rebel II	2	Panicle Shape	Rebel II	2	
Seed Size	Rebel II	3	Cold Injury	Rebel II	2	
Winter Color	Rebel II	3	Heat	Rebel II	2	
Disease	Rebel II	3				

^{* 15.} EXPERIMENTAL: Give a brief summary of the experimental design utilized to collect the data used on this form. Cultural conditions, number of plants measured and plant spacing must be specified.

A morphological nursery designated 01PVPFA was established in September 2001, in Albany, Oregon. Experimental design consisted of 20 entries; 4 replications per entry; 20 plants per replication; for a total of 80 plants per entry for tables 1A, 1B. Experimental design consisted of 20 entries; 3 replications per entry; 20 plants per replication; for a total of 60 plants per entry for tables 2 - 4. KY-31, Rebel II, Plantation and Tulsa were used as standards. Plants were established on 2.5 foot centers with a skip row between replications and between entries.

The nursery received 30 pounds of nitrogen per acre rate following establishment and 50 pounds of nitrogen per acre per year in 2002 and 2003. The fertilizer source was 15 - 15 - 15 and was applied as a split application with ½ applied in the spring and ½ in the autumn. The nursery was sprayed twice each spring, 3 weeks between applications, with Tilt (2oz/acre rate), to prevent stem rust. One pound of Karmex per acre rate was applied during the late summer to prevent emergence of volunteer seedlings.

Data was analyzed using analysis of variance for a randomized complete block design. Means were calculated for each replication and then analyzed.

Exhibit D:

Additional Description Lexington (<RB3) Tall Fescue (37:3/4/2006)

-RB3 is an improved turf-type tall fescue. It has a shorter mature plant height (tables 1A, 1B) than previously released tall fescue cultivars, such as KY-31. RB3 has a medium maturity with a heading date later than KY-31 (tables 1A, 1B). RB3 exhibits a darker genetic color compared to KY-31, Rebel II, Plantation and Tulsa (tables 1A, 1B). The length of the panicle is shorter for RB3 compared to KY-31 (tables 1A, 1B). The length of the flag leaf of RB3 is significantly shorter than KY-31, Rebel II, Plantation and Tulsa (tables 1A, 1B). The flag leaf characteristic sheath length is shorter for RB3 compared to KY-31, Rebel II and Tulsa (tables 1A, 1B). The leaf blade length is shorter for RB3 compared to KY-31 and Rebel II (tables 1A, 1B). The length of the leaf blade sheath is reduced for RB3 compared to KY-31, Rebel II and Plantation. RB3 has fewer spikelets per panicle compared to KY-31, Rebel II and Plantation (tables 2A, 2B). The distance between the lower most whorl and the apex is reduced for RB3 compared to KY-31 and Rebel II (tables 2A, 2B). RB3 expresses fewer plants with a horizontal growth habit compared to KY-31 and Tulsa, but more than Plantation (tables 3A, 3B). RB3 has a lower percentage of plants with purple pigmentation in the panicle than KY-31, Plantation and Tulsa (tables 3A, 3B). RB3 expresses a higher frequency of plants with only one main branch of the lower most whorl compared to KY-31, Rebel II, and Plantation (tables 3A, 3B, illus. 1). Pubescence of the panicle branch is less dominant in RB3 compared to KY-31 and Plantation (tables 3A, 3B). The milligram weight of 1,000 seeds of RB3 is greater than KY-31, Rebel II, Plantation and Tulsa (tables 4A, 4B). The production of dark pigmentation at the nodes is less frequent in RB3 compared to KY-31, Rebel II and Tulsa (tables 4A, 4B).

	Table 1A					200	2002 Morphological	oloud		Data						
	Cultivar	Genetic	Genetic Heading	Anthesis	Mature	Plant	Plant Panicle	Flag		Flag	Flag	Flag	Leaf	Leaf	Leaf	Leaf
		Color	Date	Date	Plant	Width	Length	Leaf		Leaf			Blade	Blade	Blade	Sheath
			(days after	(days after	μ	(cm)	(cm)	Length	Width	Height	Sheath	Internode	Length			Length
90/	185.84/06) Leconoton		April 1)	April 1)	(cm)			(cm)	(mm)	(cm)		Length (cm)		(mm)		(cm)
	(RB3≯)	6.21	38.25	65.00	86.90	10.83	69.03	32.35	6.98	17.88	33	15.15	27.65	9.23	13.90	11.03
	SBL	5.71	36.25	64.75	95.18	11.03	73.18	35.28	6.70	21.93	21.83	17.25	30.05	8.85	16.48	11.73
	SBM	5.58	39.00	65.25	88.85	11.00	67.83	32.45	6.03	21.05	20.85	17.35	35.08	8.60	15.40	11.63
-	RB2	5.90	35.50	64.50	89.40	10.40	68.85	33.45	6.78	19.45	21.00	16.68	28.25	8.93	15.03	11.25
	ATF799	5.89	43.75	66.75	83.28	10.45	62.83	29.08	00.9	20.38	19.05	17.10	26.08	8.38	14.13	10.85
	ATF800	5.61	42.50	67.25	93.05	10.78	68.63	33.65	00.9	24.75	22.25	20.48	29.40	8.30	17.05	12.10
	ATF802	5.66	40.00	65.75	91.48	11.13	72.38	34.15	5.98	18.75	22.18	16.48	27.85	8.70	13.58	10.98
	ATF704S1	5.43	38.00	65.75	97.10	11.18	70.98	35.03	6.38	25.05	22.70	20.35	29.88	8.38	17.63	12.33
	ATF803	5.59	39.50	66.75	92.48	10.60	72.73	36.48	7.45	19.63	22.10	16.65	31.48	9.35	15.10	11.83
	ATF805	6.13	45.75	69.75	73.20	8.75	58.40	28.48	5.78	14.68	18.38	13.38	23.53	8.03	10.95	9.60
	KY-31	3.86	35.25	65.25	122.95	11.23	83.73	48.43	7.68	37.30	32.63	26.38	44.10	11.05	31.05	18.65
-	Rebel II	5.04	41.25	66.50	88.18	10.60	68.45	38.00	7.58	19.35	23.10	16.70	32.75	9.85	15.63	12.48
	Plantation	5.69	40.25	66.00	89.23	11.03	68.00	35.28	6.73	20.95	22.15	17.13	31.20	9.25	16.35	12.55
	Tulsa	5.09	40.50	66.50	97.98	11.00	72.35	37,35	6.48	24.53	23.40	19.78	32.40	8.63	18.78	13.00
	018	90.9	40.50	00:99	88.15	11.15	88.08	33.43	6.73	20.28	20.98	16.90	28.40	8.80	14.85	11.45
(62:63/69) L	LSD(0,05)	0.21	2.01	1.42	5.38	06.0	4.02	2.49	0.63	2.47	1.31	1.56	3.65	0.60	1.94	0.94
₹ 2 2 2 3		3.31	4.32	1.82	4.89	7.02	4.83	2.97	8.27	9.33	4.96	7.18	10.05	5.81	9.83	6.54
	Cultivar under evaluation	er evaluatic	F													

Cultivar under evaluation
Significant difference over two years one location.
Significant difference over one year one location.
Measurements taken in Albany, Oregon
4 reps; 20 plants/rep = 80 data points

14.

	Table 1B	m	·			200	2003 Morphological Data	oloda	ical [Jata						
	Cultivar	Genetic Heading	Heading	Anthesis	Mature	Plant	Panicle I	Flag	Flag	\blacksquare	Flag	Flag	Leaf	Leaf I	Leaf	Leaf
		Color	Date	Date	_		Length	Leaf	Leaf		Leaf		Blade	Blade	Blade	Sheath
			(days after	(days after	Height	(cm)	(cm)	Ľ	Width	Height (Sheath	Internode	Length	_	Height	Length
, life -	10 minocha		April 1)	April 1)	(cm)		<u> </u>	(cm)	<u>(</u> (mm)	(cm)	돭	jth jth	(cm)) (mm)	(cm)	(cm)
(90,11,100)	KB34	5.96	55.50	58.35	115.60	27 75	76.43	44 40	5 38	38 13	cm)	(cm)	13 83	20.8	20 50	47.40
•	SBL	5.58	51.25	56.65		28.25	77.35	46.50	+	37.90	28.90	24.98	42.50	5.85	31 43	17.50
	SBM	5.64	57.25	59.65	111.50 27.25	27.25	71.43	43.60	+	38.95	26.53	24.98	40.60	6.15	31.45	16.68
	RB2	90.9	52.00	56.48	113.75	28.00	73.23	44.68	5.00	39.88	26.63	24.70	41.95	5.38	30,45	17.50
	ATF799	5.90	60.75	61.98	107.50	27.25	67.68	38.88	4.40	38.75	23.28	25.20	38.25	5.18	28.65	16.28
	ATF800	5.76	58.50	59.83	118.05	28.50	76.53	42.60	4.85	39.60	27.40	27.35	41.48	5.40	28.30	17.78
	ATF802	5.71	58.50	09:09	120.35	27.50	80.30	48.10	5.15	38.65	29.05	25.75	42.88	5.88	29.43	17.73
	ATF704S1	5.43	51.25	56.50	118.13 27.50	27.50	76.93	45.05	5.10	39.85	27.65	26.45	40.13	5.70	28.73	17.38
	ATF803	5.53	58.00	60.30	120.65	27.00	78.18	46.43	5.25	42.98	28.08	24.80	45.03	00.9	33.50	18.43
	ATF805	6.34	58.50	60.83	110.10 25.75	25.75	75.38	42.53	5.15	34.83	25.80	22.85	39.85	5.90	26.30	16.43
	KY-31	2.99	46.00	54.28	145.90	27.50	89.48	59.13	7.18	37.30	37.18	28.05	61.03	9.05	51.40	24.68
	Rebel II	5.11	57.75	29.08	118.63	27.75	82.08	50.90	6.03	36.43	28.98	24.58	48.60	6.33	28.58	18.98
	Plantation	5.71	57.75	60.28	118.68	27.75	77.60	46.80	5.68	40.40	27.85	24.75	44.43	6.78	31.53	18.33
	Tulsa	5.10	57.25	59.98	118.65	27.00	79.68	47.78	5.18	39.13	28.55	25.48	43.20	5.45	29.28	17.85
	018	6.10	59.50	60.73	108.98	27.00	70.58	44.63	5.25	38.13	26.70	23.83	42.80	6.25	29.10	16.83
(60/05/JOE)	ets (/30/06) LSD0.05)	0.25	2.47	1.15	4.51	1.77	3.91	2.13	0.78	3.57	1.44	1.16	2.42	0.92	3.55	1.06
-	<u></u>	3.90	3.74	1.65	3.25	5.47	4.33	3.90	12.72	7.51	4.34	3.86	4.67	12.97	9.61	4.99
	Cuttivarung	Cultivar under eveluation	22										1			

Cultivar under evaluation
 Significant difference over two years one location.
 Significant difference over one year one location.
 Measurements taken in Albany, Oregon
 teps; 20 plants/rep = 80 data points

	Table 2A	4			7	2002 L	abora	Laboratory Morphological Data	hological	Data				
	Cultivar	Lemma		Lemma Lemma Palea		Palea	Glume	Length of	Spikelets	Florets	Spikelet	Length of	Distance	Number of
		Length	Width	Awn	Length Widt	Width	Length	Panicle from per Panicle	per Panicle	per	Length	Longest	Between	Spikelets on
		(mm)	(mm)		(mm)	(mm)	(mm)	Lower Most		Spikelet	(mm)	Whorl	Lower Most	_
() also	lextro-lon ⁵			(mm)				Whorl to Tip (cm)				(mm)	Whorls	
) (appel+/s	(S/House) (RB32)	6.80	1.55	0.91	6.32	1.19	5.15	18.47	76.67	7.53	13.17	76.40	46.43	13.50
•	SBL	6.85	1.46	1.06	6.45	1.15	5.36	20.53	80.00	7.10	13.00	89.57	51.30	14.83
	SBM	6.83	1.55	1.08	6.41	1.17	5.08	19.60	80.00	7.20	13.07	86.10	47.60	14.50
	RB2	6.46	1.56	0.86	6.08	1.22	5.12	17.87	76.67	7.17	12.47	76.33	45.23	12.83
	ATF799	6.55	1.47	0.84	6.19	1.15	5.00	17.23	72.33	7.50	12.87	74.47	42.80	13.80
	ATF800	7.17	1.46	0.94	6.65	1.13	4.98	18.77	70.00	7.33	13.20	80.07	46.87	11.73
	ATF802	7.00	1.55	0.83	6.34	1.21	5.31	20.60	82.67	8.20	13.50	92.07	52.87	15.27
	ATF704S1	7.14	1.46	0.94	6.61	1.14	5.57	19.07	73.67	7.47	13.13	79.70	47.17	12.10
	ATF803	6.77	1.49	0.82	6.28	1.10	5.31	21.73	85.33	79.7	13.07	101.13	54.20	13.80
	ATF805	6.73	1.51	0.88	6.37	111	5.29	16.93	80.67	8.10	13.50	71.93	41.53	13.97
	KY-31	7.74	1.62	0.98	7.25	1.26	5.77	29.33	116.33	8.07	15.13	111.17	67.90	16.33
	Rebel II	6.77	1.45	1.07	6.35	1.09	5.35	21.67	98.00	06.9	12.53	91.77	53.83	14.57
	Plantation	6.72	1.45	08.0	6.33	1.14	4.83	20.43	97.33	71.7	12.63	87.10	48.40	15.50
	Tulsa	6.72	1.48	0.78	6.25	1.14	4.87	21.60	93.67	7.27	12.50	89.80	50.77	13.87
	018	7.11	1.49	0.92	6.45	1.12	5.00	20.43	85.00	7.63	13.53	86.83	48.17	16.30
(90/105/9)	81:6/30/06/ LSD(0.05)	0.31	80.0	0.17	0.23	0.08	0.34	2.31	11.18	0.85	0.91	13.15	5.49	2.95
	ბ	3.25	3.94	12.97	2.64	5.23	4.83	8.32	9.84	8.43	5.08	11.21	8.11	15.44
	Cultivar under evaluation	der evaluati	no											

Cuttivar under evaluation
 Significant difference over two years one location.
 Significant difference over one year one location.
 Measurements taken in Albany, Oregon
 reps; 20 plants/rep = 60 data points

L	Table 2B				- 1	2003 L	abora	2003 Laboratory Morphological Data	hological	Data				
	Cultivar	Lemma Length	Lemma Width	Lemma Lemma Lemma Palea Length Width Awn Lengt		Palea Width	Glume	Length of Panicle from	Spikelets per Panicle	Florets	Spikelet I ength	Length of	Distance Retween	Number of
				£	(mm)	(mm)		Lower Most		Spikelet		Whorl	Lower Most	the Longest
#Waldblook)	levi votou			(mm)				Whorl to Tip (cm)					Whorls	Whorl
	RB35)	7.16	1.45	1.48	6.50	1.22	5.07	26.23	92.67	5.27	11.27	100 10	66.67	17 93
	SBL	7.06	1.49	1.47	6.39	1.20	5.17	26.13	92.00	5.63	11.43	101.40	67.87	16.83
	SBM	7.15	1.48	1.51	6.53	1.18	4.98	25.67	89.67	5.57	11.47	108.50	63.93	17.07
	RB2	6.88	1.43	1.21	6.22	1.19	4.95	25.87	99.33	5.13	10.73	104.77	63.30	19.57
	ATF799	6.52	1.46	1.15	6.10	1.17	4.72	22.50	85.33	5.23	10.50	89.47	55.83	15.93
	ATF800	6.30	1.42	1.15	6.16	1.18	4.44	23.10	77.67	4.87	10.43	81.70	57.10	11.37
	ATF802	6.47	1.37	1.37	6.07	1.17	4.80	27.43	92.33	5.60	10.53	111.00	68.57	18.27
	ATF704S1	6.92	1.57	1.55	6.59	1.29	5.17	26.37	82.67	5.60	11.40	104.23	68.03	15.40
	ATF803	6.20	1.60	1.35	6.18	1.20	4.98	28.83	97.67	4.97	10.47	126.50	69.93	17.30
	ATF805	90.9	1.42	1.55	6.08	1.09	4.79	24.57	103.00	5.53	10.50	85.17	58.53	16.57
	KY-31	7.28	1.55	1.59	7.13	1.32	5.41	34.67	122.67	6.23	13.23	123.40	80.83	17.93
	Rebel II	6.75	1.47	1.80	6.21	1.18	5.00	29.47	108.00	4.53	10.63	117.07	71.40	18.47
	Plantation	6.41	1.45	1.31	6.14	1.19	4.40	27.30	105.33	4.80	10.13	106.87	65.43	17.37
1	Tulsa	6.33	1.42	1.39	5.97	1.24	4.51	27.67	100.67	4.77	9.87	101.97	68.40	16.97
	018	6.45	1.41	1.52	6.08	1.15	4.51	25.93	92.33	5.37	10.60	96.53	63.23	16.90
豆	(\$130/300687) LSD(0.05)	0.70	0.10	0.27	0.31	0.10	0.37	1.81	8.48	0.47	0.79	11.74	5.46	2.80
	S S	7.74	4.86	13.52	3.64	6.31	5.60	4.93	6.51	6.53	5.28	8.27	6.05	12.18
' -	Cultivar under evaluation	er evaluatic	u(

Significant difference over two years one location.

Significant difference over one year one location.

Measurements taken in Albany, Oregon

3 reps; 20 plants/rep = 60 data points

	Table 3A	٧	į	2	2002 Additio	ditional I	Morphol	logical M	easuren	and Morphological Measurements of the Panicle	he Pan	<u>ce</u>				-
	Cultivar	Growth	Growth	Growth	Growth	Anther	Panicle	Lemma	Glume	Panicle	Panicle	ě	Panice	Panicle Panicle Panicle	Panicle	Panicle
		Habit at	Habit at	Habit at	Habit at	Color	Color	Awn		on				Branch	Branch	Branch
		Anthesis	Anthesis	Anthesis	Anthesis	Anthesis Anthesis % Purple	% Purple	% Present	% Purple	% Nodding % Oblond % Open	% Oblond	% Open				Puhescence
		% Semi-	% Semi- % Horizontal	% Semi- % Erect	% Erect					,			_			% Present
Ş	Lexit Metorn	Prostrate		Erect												1000
ģ.	KRB3	0	28	42	30	2	18	100	0	0	72	72	98	57	3	
' -	SBL	0	20	45	35	5	20	5	2	3	8	8	8	65	2	က
	SBM	0	2	26	42	5	27	100	က	2	39	65	20	75	5	8
_	RB2	0	12	55	33	10	20	100	2	0	29	- 29	20	75	Ω.	2
_	ATF799		17	28	25	10	43	100	0	0	38	88	용	55	2	12
	ATF800	0	32	23	12	3	45	100	5	0	43	43	18	78	2	0
	ATF802	က	25	82	4	7	50	100	3	0	53	53	R	75	2	2
	ATF704S1	0	22	71	7	ဂ	20	100		0	47	47	23	75	2	လ
	ATF803	2	50	45	3	0	32	100	2	5	30	30	8	83	တ	င
	ATF805	0	20	62	18	3	23	100	2	0	27	27	15	82	က	3
	KY-31	10	62	78	٥	က	7	100	0	15	23	23	∞	87	2	18
	Rebel II	က	17	48	32	3	40	100	0	0	48	48	6	8	11	က
	Plantation	0	ထ	8	78	5	35	100	0	0	20	20	13	85	7	12
	Tulsa	2	34	27	7	3	32	100	3	8	45	45	9	88	2	2
	018	0	ß	22	38	2	25	100	0	0	45	45	9	09	-	7
	CI I STORY	.0.00.00.000														

Cultivar under evaluation Measurements taken in Albany, Oregon 3 reps; 20 plants/rep = 60 data points

Growth Growth Growth Growth Anther Antherist Anther Antherist Ant		Table 3B	-	2	003 Adc	Jitional	Morphol	ogical Mo	easuren	2003 Additional Morphological Measurements of the Panicle	he Pan	icle					
Habit at Anthesis Authesis Authesi	Growth		Growth	Growth	Growth	Anther	Panicle	Lemma	Glume	Panicle	Panicle	Panicle	Panicle	Panicle	Panicle	Panicle	
Anthesis Anthesis Anthesis Anthesis Anthesis Purple % Purple <	Habit at	_	Habit at	Habit at	Habit at				Color	Orientation		Type	Branch	Branch	Branch	Branch	
% Horizontal % Semi-brit % Erect 3 100 0 66 66 68 39 49 13 25 47 28 2 3 100 0 66 66 39 49 13 22 45 33 2 12 100 3 0 65 66 66 34 59 7 4 56 41 2 7 100 2 0 65 65 62 34 59 7 41 57 32 2 7 100 0 0 66 66 66 36 9 7 33 54 13 3 100 3 0 70 70 7 7 38 60 3 10 6 36 55 10 10 10 10 10 10 10 10 10 10 10 10 10 <td>Anthe</td> <td>ŝ</td> <td></td> <td>Anthesis</td> <td>Anthesis</td> <td>% Purple</td> <td>Purple</td> <td>% Present</td> <td></td> <td>% Nodding</td> <td>% Oblond</td> <td></td> <td>ower</td> <td>ower</td> <td></td> <td>Pubescence</td> <td></td>	Anthe	ŝ		Anthesis	Anthesis	% Purple	Purple	% Present		% Nodding	% Oblond		ower	ower		Pubescence	
Erect Benetic	∣% Sel	Ė		% Semi-	% Erect						,			-		% Present	
25 47 28 2 3 100 0 66 66 66 66 66 67 49 13 22 45 33 2 12 100 3 0 65 65 84 49 7 4 56 41 2 7 100 2 0 62 62 24 68 9 7 11 57 32 2 3 100 0 72 72 54 68 9 7 41 57 13 0 66 66 66 86 84 10 36 53 6 2 17 100 3 0 70 77 77 38 60 3 49 43 2 12 100 6 70 70 70 71 4 10 50 33 0 0 100	Prost	rate		Erect				•							5		
22 45 33 2 12 100 3 0 65 65 34 59 7 4 55 41 2 7 100 2 0 62 62 24 68 9 11 57 32 2 3 100 0 72 72 54 44 2 33 54 13 3 10 0 66 66 36 54 10 41 52 7 18 0 100 7		0	25	47	28	2	8	100	0	0	99	98	Т	64	13	0	
4 56 41 2 7 100 2 0 62 62 62 62 64 44 2 33 54 13 3 100 0 0 72 72 72 64 44 2 41 57 7 72 7 74 44 2 10 41 52 7 18 0 100 3 0 66 66 66 36 34 10 36 53 6 2 17 100 8 0 77 77 38 60 3 49 43 2 2 17 100 8 0 77 77 38 60 3 49 43 2 12 100 5 100 70 70 70 71 71 6 55 33 0 0 100 0	_		22	45	33	2	12	100	3	0	89	88	8	29	_	4	
11 57 32 2 3 100 0 72 72 72 54 44 2 33 54 13 3 12 100 3 0 66 66 36 54 10 41 52 7 18 0 100 3 0 70 70 21 68 11 26 70 5 7 77 77 38 60 3 11 49 43 2 2 17 100 5 0 77 77 38 60 3 49 43 2 2 12 100 5 0 70 70 70 71 4 55 33 0 0 100 0 100 70 100 10 10 50 42 35 3 10 0 0 100 100 10	_	0	4	22	41	2	7	92	2	0	62	62	24	89	6	2	
33 54 13 3 12 100 3 0 66 66 66 36 54 10 7 41 62 7 18 0 100 3 0 70 70 21 68 11 9 25 70 5 17 70 77 77 38 60 3 17 4 49 43 2 2 12 100 5 0 70 70 70 70 71 4 49 43 2 12 100 5 5 55 71 6 55 33 0 0 0 100 0 100 7 0 15 75 10 50 42 35 3 8 100 0 0 80 80 18 10 10 53 60 3 3 10		0	11	22	32	2	3	100	0	0	72	72	54	44	2		
41 52 7 18 0 100 3 0 70 70 21 68 11 70 36 53 6 2 17 100 8 0 77 77 38 60 3 49 43 2 2 12 100 5 0 70 70 70 24 71 4 49 43 2 2 12 100 0 0 70 70 70 24 71 6 55 33 0 0 0 100 7 0 100 10 <td>_ </td> <td></td> <td>33</td> <td>54</td> <td>13</td> <td>3</td> <td>12</td> <td>100</td> <td>3</td> <td>0</td> <td>99</td> <td>88</td> <td>98</td> <td>25</td> <td>9</td> <td>-</td> <td></td>	_		33	54	13	3	12	100	3	0	99	88	98	25	9	-	
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Measurements taken in Albany, Oregon 3 reps; 20 plants/rep = 60 data points

Panicle Type Inflorescence

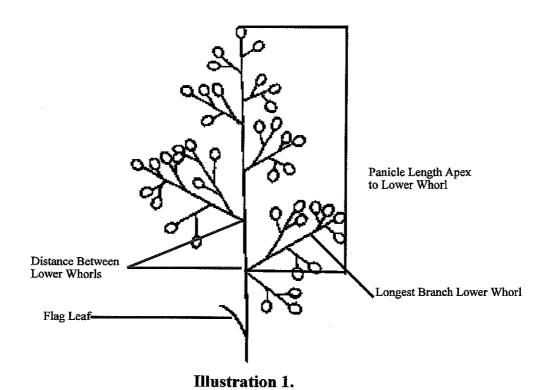


Table 4A	4A		2002 Ac	2002 Additional Morphological Measurements	lological !	Measuren	nents				
Cultivar	Anthocyanin	Leaf Blade Margin Leaf Blade N	Leaf Blade N	largin Leaf Blade Margin Leaf Blade Leaf Sheath Rhizomes	Leaf Blade	Leaf Sheath	ses	Lemma	Palea	Node	Seed
	Present in the	Present in the Roughness to the	Roughness t	Roughness to the	Margin	Auricle	% Present Hairs	Hairs	Hairs	Color	Weight
9	Leaf Blade	Touch	Touch		Hairs			sent	% Present % Distinct	% Distinct	(ma/1.000
Sext Muta	w % Purple	% Smooth	% Semi-Rough	% Rough	% Present	% Present					seeds)
MARKE STY	0	18	35	47	100	26	0	86	100	22	3977
SBL	0	35	33	32	97	93	0	100	100	15	2578
SBM	0	35	23	42	86	96	0	95	100	2	3194
RB2	0	28	22	48	86	96	0	26	100	9	2103
ATF799	0	25	22	23	100	26	0	100	100	7	2350
ATF800	0	7	22	71	100	100	0	100	100	32	3080
ATF802	0	33	24	43	100	86	0	86	100	30	2638
ATF704S1	S1 0	30	32	38	100	26	0	100	100	47	2562
ATF803	0	15	18	29	100	97	0	100	100	28	3195
ATF805	0	10	12	78	100	96	0	100	100	12	3006
KY-34	0	58	22	18	100	96	0	100	100	င္တ	2924
Rebel II	0	12	15	73	100	86	0	100	100	10	2334
Plantation	0	15	25	90	100	100	0	100	100	က	2458
Tulsa	0	47	16	37	100	86	0	100	100	15	2347
018	0	<u>5</u>	12	75	100	100	0	100	100	က	2338
E Cultivar	Cultivar under evaluation						-				

Cultivar under evaluation Measurements taken in Albany, Oregon 3 reps; 20 plants/rep = 60 data points

	_				_	_		_	_	_	1	_	_		_	т	F	т	т
	Seed	Weight	(ma/1.000	seeds)	3973	2580	3190	2109	2345	3114	2702	2564	3139	3070	2937	2310	2463	2352	2345
	Node	Color	% Distinct		7	10	5	ဇ	2	2	48	70	10	0	32	5	2	8	2
	Palea	Hairs	% Present		100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Lemma	Hairs	% Present % Present		66	100	100	100	100	100	100	66	100	66	100	66	100	100	66
ents	Ses	% Present Hairs			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
/leasuren	eaf Sheath	Auricle	lairs	% Present	92	06	92	97	91	66	8	92	36	06	94	91	92	96	91
ological N	Leaf Blade	Margin /	Hairs	% Present 9	95	66	100	96	92	92	66	35	66	96	96	97	26	26	96
2003 Additional Morphological Measurements	Margin Leaf Blade Margin Leaf Blade Leaf Sheath Rhizomes	Roughness to the	Touch	% Rough	2	0	5	0	10	2	0	5	7	3	8	3	8	3	2
2003 Ad	Leaf Blade Margin	ess	Touch	% Semi-Rough	20	15	17	12	18	43	17	18	23	15	37	12	20	7	22
		ness to the	Tonch	% Smooth	78	85	78	88	72	55	83	77	70	82	55	85	72	06	77
	Anthocyanin	Present in the	Leaf Blade	% Purple	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Table 4B	Cultivar		2	ton	(RB39)	SBL	SBM	RB2	ATF799	ATF800	ATF802	ATF704S1	ATF803	ATF805	KY-31	Rebel II	Plantation	Tulsa	018
				Land thank	121:10/Homes														

Measurements taken in Albany, Oregon 3 reps; 20 plants/rep = 60 data points

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U.S. DEPARTMENT OF AGRICULTURE						
AGRICULTURAL MARKETING SERVICE	Application is required in order to determine if a plant variety protection certificate is to be issued (7 <i>U.S.C. 2421</i>). The information is held					
EXHIBIT E	confidential until the certificate is issue					
STATEMENT OF THE BASIS OF OWNERSHIP						
1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION	3. VARIETY NAME				
Rutgers. The State University of New Jersey	OR EXPERIMENTAL NUMBER RB3	1 1 /				
ele Rutgere University (BT: 9/4/2006)	KD3	Lexington (BT: 2/4/200				
4. ADDRESS (Street and No., or R.F.D. No., City, State, and Zip, and Country)	5. TELEPHONE (Include area code)	6. FAX (Include area code)				
Foran Hall	732 - 932 - 9711 ext. 160	732 - 932 - 9441				
Plant Biology & Pathology Dept. 59 Dudley Road						
New Brunswick, NJ 08901	7. PVPO NUMBER	مستحد ند الله المدارية				
	2004	00147				
8. Does the applicant own all rights to the variety? Mark an "X" in the appropriat	e block. If no. please explain.					
C. Dood the approach own an righte to the railety. Hark an X in the appropriate	Ø PISSEN II IIS, PISSES SAPIGIIII	П				
	⊢ YE	s LI _{NO}				
9. Is the applicant (individual or company) a U.S. national or a U.S. based comp	pany? If no, give name of country.					
	⊠ _{YE}	\Box_{NO}				
	Z YES	S — NO				
10. Is the applicant the original owner?	If no, please answer one o	f the following:				
		• • • • • • • • • • • • • • • • • • • •				
⊠ _{YES} □ _{NO}						
 a. If the original rights to variety were owned by individual(s), is (are) the original 	ginal owner(s) a U.S. National(s)?					
⊠ _{YES} □ _{NO}	If no, give name of country	,				
— 125 — NO	ii iio, give name or country	•				
b. If the original rights to variety were owned by a company(ies), is (are) the	original owner(s) a U.S. based company	<i>l</i> ?				
⊠ _{YES} □ _{NO}	If no, give name of country	,				
120	ii iio, give name oi counti					
11. Additional explanation on ownership (If needed, use the reverse for extra sp	ace):					
PLEASE NOTE:						
PLEASE NOTE:						
Plant variety protection can only be afforded to the owners (not licensees) who r	neet the following criteria:					
1. If the rights to the variety are owned by the original breeder, that person must national of a country which affords similar protection to nationals of the U.S. for	be a U.S. national, national of a UPOV	member country, or				
If the rights to the variety are owned by the company which employed the orig nationals of a UPOV member country, or owned by nationals of a country whi species.						
3. If the applicant is an owner who is not the original owner, both the original own	ner and the applicant must meet one of	the above criteria.				
The original breeder/owner may be the individual or company who directed the fidefinitions.	inal breeding. See Section 41(a)(2) of th	e Plant Variety Protection Act for				
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